

CLAIMS

1. A device for securing doctor blades to a printing roller doctor assembly of the type that comprises releasable securing means for joining at least one  
5 longitudinal supporting portion (1a) of a doctor blade (1) to a body (2) of said doctor assembly (10), being another free longitudinal portion (1b) of said doctor blade (1) cantilevered, **characterised** in that said releasable securing means comprise at least one magnetic element (3) configured and arranged to maintain a first face of said supporting portion (1a) of the at least one doctor blade (1) in a  
10 firm contact with a supporting surface (4) of said body (2) and a pressing element (5) in a firm contact with a second face of the supporting portion (1a) of the doctor blade (1) opposite to said first face in contact with the body (2), with the supporting portion (1a) of the doctor blade (1) being trapped between said pressing element (5) and said supporting surface (4) of the body (2).

15 2. A device in accordance with claim 1, characterised in that the at least one magnetic element (3) is imbedded in the material of the body (2) and has an active surface that is level with the supporting surface (4) of the body (2) and the pressing element (5) includes a material attractable by the magnetic element (3).

20 3. A device in accordance with claim 2, characterised in that the magnetic element (3) is formed by at least one continuous strip imbedded in the material of the body (2) along the length of the body (2).

4. A device in accordance with claim 2, characterised in that the magnetic element (3) is formed by a plurality of pieces imbedded in the material of the body (2) and distributed along the length of the body (2).

25 5. A device in accordance with claim 1, characterised in that the at least one magnetic element (3) is imbedded in the material of the pressing element (5) and has an active surface level with a pressing element (5) surface designed to come into contact with said second face of the doctor blade (1), including at least part of the supporting surface (4) of the body (2), a material attractable by the  
30 magnetic element (3).

6. A device in accordance with claim 5, characterised in that the magnetic element (3) is formed by at least one continuous strip imbedded in the material of the pressing element (5) along the length of the pressing element (5).

7. A device in accordance with claim 5, characterised in that the magnetic element (3) is formed by a plurality of pieces imbedded in the material of the pressing element (5) along the length of the pressing element (5).

5 8. A device in accordance with claim 5, characterised in that the magnetic element (3) is made of the very material of said pressing element (5).

9. A device in accordance with any of claims 5 to 8, characterised in that, in the case of the body (2) material is not magnetic or paramagnetic, at least one element (8) of a material attractable by the magnetic element (3) is imbedded in the body (2) material and has a surface that is level with said supporting surface  
10 (4) of the body (2).

10. A device in accordance with any of claims 5 to 8, characterised in that said at least one body (2) is, at least on the supporting surface (4) of the same, made of a material attractable by the magnetic element (3).

11. A device in accordance with claim 2, characterised in that the at least  
15 one magnetic element (3) is linked to a mechanism configured and arranged to selectively move the magnetic element (3) between a resting position, in which the magnetic force of the magnetic element (3) is attenuated or cancelled, and an operating position, in which the magnetic force of the magnetic element (3) acts on the doctor blade (1) and on the material attractable by the magnetic  
20 element (3) included in the pressing element (5).

12. A device in accordance with claim 11, characterised in that, in said resting position, the cited active surface of the magnetic element (3) is sunken below and away from the supporting surface (4) of the body (2), while in said operating position, the cited active surface of the magnetic element (3) is level  
25 with the supporting surface (4) of the body (2).

13. A device in accordance with claim 11, characterised in that the magnetic element (3) is formed by several pieces and, in said resting position, the cited pieces of the magnetic element (3) are arranged so that their polarities are cancelled and, in said operating position, the pieces of the magnetic element  
30 (3) are arranged so that their polarities add together.

14. A device in accordance with claim 5, characterised in that the at least one magnetic element (3) is linked to a mechanism configured and arranged to selectively move the magnetic element (3) between a resting position, in which

the magnetic force of the magnetic element (3) is attenuated or cancelled, and an operating position, in which the magnetic force of the magnetic element (3) acts on the doctor blade (1) and on the cited material that is attractable by the magnetic element (3) included in the supporting surface (4) of the body (2).

5           15. A device in accordance with claim 14, characterised in that, in said resting position, the cited active surface of the magnetic element (3) is sunken below and away from the surface of the pressing element (5), while in said operating position, the active surface of the magnetic element (3) is level with the supporting surface (5).

10           16. A device in accordance with claim 14, characterised in that the magnetic element (3) is formed by several pieces and, in said resting position the cited pieces of the magnetic element (3) are arranged so that their polarities are cancelled and, in said operating position, the pieces of the magnetic element (3) are arranged so that their polarities add together.

15           17. A device in accordance with claim 2 or 5, characterised in that the at least one magnetic element (3) consists of an electromagnet connected to a power supply and control circuit designed to selectively activate and deactivate the magnetic force of the electromagnet.

20           18. A device in accordance with claim 1, characterised in that the pressing element (5) is linked by one of its edges to the body (2) by means of an articulation (6) so that the pressing element (5) can pivot between an open position and a securing position.

25           19. A device in accordance with claim 1, characterised in that said pressing element (5) is independent of the body (2), and the body (2) comprises a configuration (7) designed to cooperate with an edge of the pressing element (5) to place the pressing element (5) in an operating position.

20. A device in accordance with claim 1, characterised in that the body (2) comprises a configuration (7) designed to cooperate with an edge of the doctor blade (1) to place the doctor blade (1) in an operating position.

30           21. A device in accordance with claim 1, characterised in that the doctor blade (1) is made of a non-magnetic or paramagnetic material or that is not attractable by a magnetic element.

22. A device for securing doctor blades to a printing roller doctor assembly of the type that comprises releasable securing means for joining at least one longitudinal supporting portion (1a) of a doctor blade (1) to a body (2) of said doctor assembly (10), being another free longitudinal portion (1b) of said doctor blade (1) cantilevered, **characterised** in that the doctor blade (1) is made of a material attractable by a magnetic element, and said releasable securing means comprise at least one magnetic element (3) configured and arranged to maintain a first face of said supporting portion (1a) of the at least one doctor blade (1) in a firm contact with a supporting surface (4) of said body (2).

10        23. A device in accordance with claim 22, characterised in that said at least one magnetic element (3) is configured and arranged to also maintain a pressing element (5) in a firm contact with a second face of the supporting portion (1a) of the doctor blade (1) opposite to said first face in contact with the body (2), with the supporting portion (1a) of the doctor blade (1) being trapped  
15        between said pressing element (5) and said supporting surface (4) of the body (2).